



Neosho County Community College Strategic Technology Plan

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Revision History

- 11.12.2009 – Page 15, Technology Replacement Schedule
- 7.15.2010 - Page 15, Technology Replacement Schedule
- 1.31.2011 – Updates Throughout, Annual Review
- 2.14.011 – Updates to Cover Page, Page 15, Technology Replacement Schedule, Page 13, Computer and Software replacement Schedule,
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Strategic Technology Plan

Introduction

Neosho County Community College's (NCCC) vision is to *adapt to the changing needs of our stakeholders with innovative, creative programs based on the leadership and excellence in faculty, administration, and staff to be the premier community college in Kansas*. Technology Services supports the mission by providing state of the art hardware and resources utilizing internal funding as well as seeking to take advantage of state and federal grant programs whenever possible.

NCCC will continue to implement upgrades to the technology infrastructure as necessary to provide the foundation for the institution as we strive to support students, faculty and staff more effectively. Our faculty relies on robust and effective educational technology tools to enhance teaching and research. Our students expect mobility, flexibility, and customization in their use of technology for classes, and in their electronic administrative interactions with the college. Our staff desire specific, timely, and accurate information to support their job duties. The Strategic Technology Plan will serve as a living document to provide guidance for achieving the institutions' mission by outlining goals and initiatives that support goals outlined in the various institutional planning documents. Specifically, this plan will address the expectations of the students, faculty and staff of NCCC by focusing on:

- Ensuring the opportunity for student success, satisfaction and enrichment.
- Ensuring community success, satisfaction and enrichment
- Ensuring employee success, satisfaction and enrichment
- Ensuring success of the Written Information Security Program (WISP)
- Ensuring institutional resiliency through proper Disaster Recovery plans and procedures

Plan Limitations

Technology is a dynamic environment that requires enhanced perception and planning to achieve stability. The rapid change in both hardware and software make it difficult to maintain standard platforms. With each change comes a greater need to refresh or retrain faculty, staff, and students to maintain efficiencies. The availability of funding may change annually, which can limit access to proper equipment, training, and support. The main drivers for technology change at NCCC are the Faculty, Staff, and Students. The use of technology by these groups requires constant assessment. The purpose of this plan is to take these assessments and provide technology solutions that will have the greatest impact to the stakeholders. However, it cannot be assumed that the plan will be all encompassing. It is meant to be a guide, and as such, should be reviewed as often as is needed to ensure that all goals and objectives are still applicable (See "Success Factors" section of this plan for more information).

Historical Overview

The use of personal computer (PC) technology at NCCC began over 30 years ago. The first personal computers in the classroom were various Apple and IBM models that provided students and faculty with a taste of what has come to be a staple in today's educational environment. With the first full-time IT staff member coming on board in 1985, the college made a commitment to ensuring that faculty, staff, and students would have the support and resources needed to be innovative using computer technology.

Today at NCCC, there are over 700 PC's/thin clients, 4 VMWARE servers hosting over 30 virtual servers, and 1 legacy physical server serving our constituents both in person and online. The institution also has multiple servers hosted in the cloud, including our mission critical Student Information System (SIS) and student portal (myNeosho) servers. They are connected via a Local Area Network (LAN) and Wide Area Network (WAN) utilizing industry-standard cabling methodologies. Internet bandwidth usage across the enterprise continues to see growth. The demand on technology continues to grow and new innovations and platforms require higher levels of sustained reliable interconnectivity.

Strategic Technology Objectives

A *strategic technology objective* enables or supports an institutional or departmental strategic goal. Strategic technology objectives are not specific projects, but describe broad end results. For each strategic technology objective, one or more technology *initiatives* and *strategies* are defined. Only technology objectives, initiatives and strategies (projects) were selected that directly support the College's Strategic Plan. Future technology projects must support at least one technology initiative to be considered for inclusion. In this way, the Strategic Technology Plan guides the deployment of technology to move us toward our institutional mission.

Below are the strategic technology objectives that set the direction for our long-term technology achievements. Specific Strategic Plan Initiatives are prefixed with the letters SP.

Objective A: Enhance Learning Processes with Instructional Technology - Use technology to inform and enhance current modes of teaching, learning, and discovery through education, evaluation, and implementation of instructional technology equipment and methods. This objective is addressed in conjunction with Online Campus personnel.

Initiatives:

- A1 Deliver options for different modes of teaching, learning, and discovery.
 - A.1.1 Implement initiatives from the Strategic Technology Plan (STP) that support the Educational Master Plan (EMP) as funding allows, including updating of classroom technology. (SP-SL 2)
- A.2 Increase utilization of instructional technology solutions.

- A.2.1 Continue updating educational spaces as funding allows. (SP SL-6)

Objective B: Ensure Technology Fluency - Ensure that faculty and staff are fluent in, and understand the capabilities of current and emerging technologies, which apply to them, their needs, and their objectives.

Initiatives:

- B.1 Ensure that faculty and staff can leverage technology to perform their mission-related functions as effectively and efficiently as possible.
- B.1.1 Upgrade core network infrastructure to limit downtime. (SP AS-9)
- B.1.2 Provide faculty and staff with adequate training which includes certification. (SP SL 2)

Objective C: Build Communities - Use or enhance existing technology that will provide new ways of building communities which will allow communication among populations who may not otherwise be able to do so.

Initiatives:

- C.1 Deliver solutions that enable communication and interaction among people.
- C.1.1 Redesign the college website in order to provide a more secure infrastructure while strengthening educational program pages, interactive college catalog, promotional videos, HR website improvements, and other areas,-(SP CN-3B)
- C.1.2 Provide a more stable IT infrastructure to limit downtime, improve customer service, and expand capabilities. (SP AS-9)

Objective D: Provide Information Access - Use technology to provide new, better, and more effective access to information to enhance the decision-making process.

Initiatives:

- D.1 Evaluate a modern and unified phone solution for the college to replace and consolidate existing systems. (SP AS-9)
- D.2 Replace and upgrade wireless access points in Residence Halls to improve student internet connectivity. (SP AS-9)

Objective E: Deploy Client-Centric Services - Use technology to provide better, more client-centric services to end users and more efficient processes for service providers to allow them to concentrate on value-added services.

Initiatives:

- E.1 Redesign the college website in order to provide a more secure infrastructure while strengthening educational program pages, interactive college catalog, promotional videos, HR website improvements, and other areas, (SP CN-3B)

Objective F: Evaluate New and Changing Technologies - Continually evolve a standard, but flexible infrastructure and services to enable and leverage new and changing technologies.

Initiatives:

- F.1 Implement initiatives from the Strategic Technology Plan (STP) that support the Educational Master Plan (EMP) as funding allows, including updating of classroom technology. (SP SL-2)
- F.2 Establish infrastructure replacement cycle to anticipate and meet institutional requirements.
 - F.2.1 Continue to review and utilize the Technology Replacement Schedule (see Appendix B).
- F.3 Provide up-to-date hardware and software. (SP AS-9, SL-2)
 - F.3.1 Implement an Information Technology Asset Management system to establish a centralized database that facilitates organization-wide inventory and lifecycle management of technology related assets. (SP AS-9)
- F.4 Simplify the way users' access institutional resources.
 - F.4.1 Implement a new Information Technology Service Management Tool that includes a self-service portal, knowledgebase and ticketing system to improve end-user experience. (SP AS-9)
- F.5 Ensure continuity of technology services for academic and administrative purposes.
 - F.5.1 Continue to review the Strategic Technology Plan on a regular basis and make appropriate modifications based on master plan documents. (SP SL-2)

Objective G: Ensure a Safe and Secure Environment – Use a combination of technology and policy to build a framework for greater information and physical security.

Initiatives:

- G.1 Continue to evaluate and develop policy that will protect the institution from security breach and ensure compliance with all state and federal statutes and regulations. (SP AS-3)
 - G.1.1 Ensure the college becomes and remains compliant with mandated compliance requirements. (SP AS-3)
 - G.1.2 Evaluate current offsite storage and/or disaster recovery options as required. (SP AS-3)
 - G.1.3 Contract an outside entity to evaluate and audit NCCC's existing security equipment and processes in place and recommend changes to increase protection from security breaches and ensure compliance with regulations. (SP AS-3)
 - G.1.4 Evaluate and/or implement authentication services and/or monitoring equipment to increase accountability and security of the local network. (SP AS-3).
 - G.1.5 Continue to enhance NCCC safety and security through implementation of procedures and equipment to further protect students and employees personal identifiable information and the college's cyber infrastructure. (SP AS-3)
- G.2 Enhance control and monitoring of campus building security.
 - G.2.1 Continue to evaluate and implement access control hardware to control physical access, log traffic in and out of buildings, and decrease the overhead of physical keys per Safety and Security Committee recommendations. (FMP, EAP, SP AS -3)

- G.2.2 Continue to implement security cameras to monitor activities on campus and effectively evaluate incidents after they have occurred. (SP AS-3)

Success Factors

The success of the Strategic Plan as a tool to guide technology decisions based on the strategic technology direction contained in this document is dependent on external factors. The success factors are each described below.

College-wide Support and Ownership – As the use of technology becomes increasingly strategic, its impact is wide reaching within the College. Where once only a handful of people were directly affected by technology, it now impacts all facets of the institution. As a result, everyone impacted needs to understand the objectives of the strategic technology plan, the personal impacts, and how it changes their interaction with the community. Technology Services can provide leadership and tools, but the entire institution must embrace and leverage the solutions to gain the true value.

Executive Management Support – Change can be confusing, uncomfortable, and difficult for those affected. Impacts of this plan may include everything from changes in job functions and organizational structures to the timelines and priorities for implementing projects. The College’s executive management must play a key role in helping the institution understand the benefits of strategically using technology and supporting the changes and impacts within their areas of responsibility. Executive management must also communicate technology’s strategic benefits and support changes within units and across the organization.

Communication – Clear, frequent and ongoing communication will be crucial to the acceptance and implementation of the strategic technology plan. Communication must be two way, helping people understand what the plan means to them individually, and the plan’s impact on their role and interactions with the institution. The message must not only get out; the College must assure it is received and understood, and be flexible in adapting communication to the audience and environment as necessary. Communication cannot be an afterthought – it is critical to the understanding, acceptance, and success of the plan.

Culture Change – Implementation of this strategic technology plan will affect the way we teach and learn, and “do business.” The College will need to utilize the Process Users Group (PUG, Appendix D) and/or the Technology Planning Committee to foster an environment open to new ways of doing things.

Appropriate Staffing – As strategic technology use at the College increases, the institution must staff appropriately. While third parties (external vendors) could provide some technology services, our institutional technology staff will be instrumental and crucial to delivering strategic, value-added

technology solutions.

Ongoing Financial Support – It will be critical to allocate appropriate institutional funding for prioritized initiatives as well as ongoing support of current services. These funds will be leveraged with other funding sources to advance technology solutions.

Professional Development and Training – As the institution and processes change, individuals and teams will need to change and grow with them. Professional development and training will be critical. Technology professionals will need to upgrade skills to implement strategic initiatives; staff will need to develop new skills as processes change; teams will need to learn new and different teamwork skills as service levels and models evolve; and faculty will need training to implement new teaching, learning, and discovery strategies.

Integrate and Continually Revise Plan – The value of this plan can only be truly realized when it is integrated into the institution’s strategic plan. Executive management must oversee the plan’s implementation and measure the success of the plan and its initiatives. The plan must also be reviewed and updated annually to assure it is continually aligned with institutional goals. Strategic technology objectives are expected to be changed as institutional goals change, but strategic technology initiatives and strategies will be subject to change much more frequently, as technology advances and/or the demands of the college change. Measurement of necessary changes may be achieved utilizing internal surveys and reports such as the outcomes assessment for instructors, technology needs assessments, and information gathered on the Noel-Levitz report. The most recent survey instruments are listed in appendix E with aggregate results.

Resources –Technology services has leveraged many sources of funding to provide state-of-the-art infrastructure. Figure 1 below illustrates the overall trend in technology spending of institutional funds and shows an increase due to increasing software maintenance costs and the implementation of new products and services that have a yearly maintenance cost associated with them.

Just as funding for academic needs are imperative to student success, funding for technology projects are the only way in which we can sustain current infrastructure and revitalize processes and hardware. Current funding levels are indicative of the economic climate today, where the priorities are that we maintain existing infrastructure and replacement plans for mission critical systems. We have gained several new instructional technologies through institutional grants. However, it will be necessary in the near future to increase the amount of money that is available to certain areas such as hardware replacement, research and development of instructional technology, web development, and online instruction technologies to keep pace with current technology trends. It’s also possible additional funding may be required to comply with unfunded mandated regulations in the future.

In recent years, we have replaced many labs and server hardware with grant money provided by the Kan Ed and Carl Perkins grant initiatives. While it is imperative that we continue to pursue these additional

avenues of funding to alleviate the impact on the institutional budget, it cannot be assumed that grants and state funding will always be available. The institution cannot base its Strategic Technology Plan on soft funding sources. We will actively seek out and continue to leverage these alternate funding opportunities as they arise, however, utilization of the technology fund will continue to increase as it has in recent years as funds from other sources dwindle.

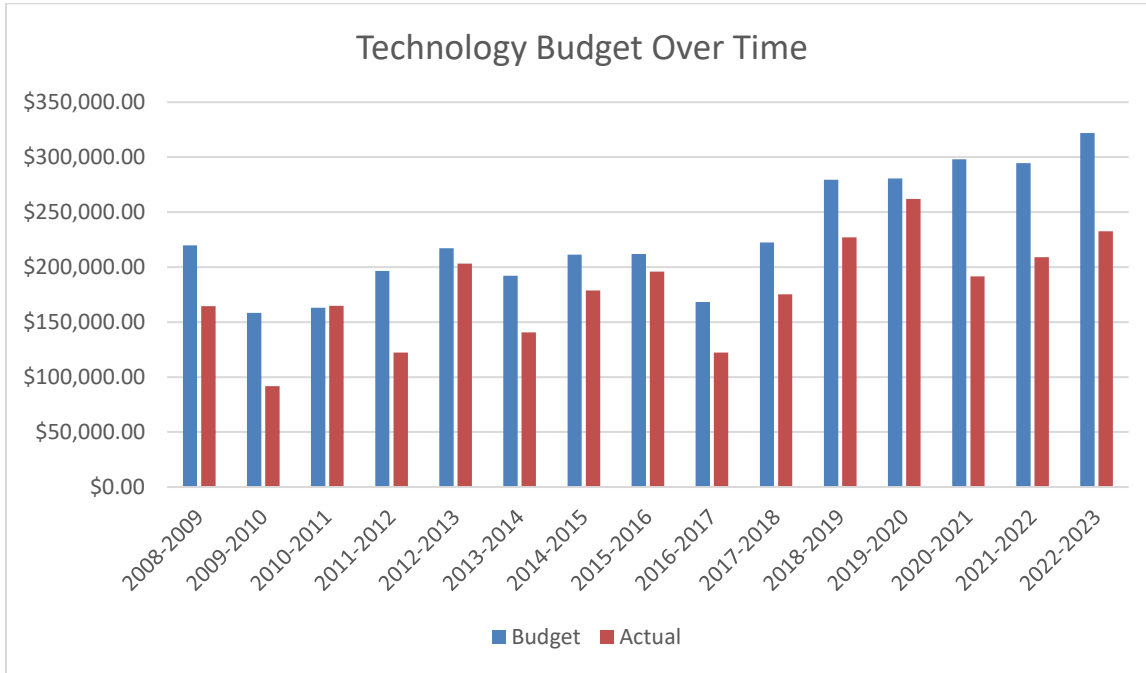


Figure 1

Vision for the Future – Compliance requirements along with data security best practices require a considerable amount of resources, NCCC will have to continue to evaluate these new requirements as they are made available and evaluate resources such as funding, staff, and equipment/software to ensure the necessary resources are available. It’s becoming more and more important to be able to properly monitor and/or log events for security auditing and this will need to be accounted for moving forward. Multifactor authentication has been implemented for basic services but may need to be expanded to cover other applications/services in the future.

As we move more services into the cloud and our campus (es) continue to grow, we will have to continue to monitor the amount of available bandwidth to ensure our constituents expectations are met.

The networking infrastructure at the Chanut campus is aging and is reaching the end of its useful life. We will be proposing a rotation plan to replace this equipment so we can stay ahead of obsolescence. The Toshiba telephone system is also very aged and is in the process of being phased out where funding allows. A core equipment failure could necessitate accelerating this replacement process.

Physical security devices are also used more and more, and the demand will continue. We must make sure that when we procure these devices we take into account the capacities and requirements that each has on the instruction and make appropriate upgrades when needed.

Due to budget constraints in recent years, the technology fund has taken on more and more responsibility from safety and security purchases. With this trend in mind, we anticipate that we will be purchasing most or all of the safety/security equipment in the future from the technology fund, this could include but is not limited to emergency alert beacons, access control devices, and cameras.

We continue to review various module offerings from Jenzabar for Jenzabar One (J1) to help improve our business operations and efficiency.

Appendix A - Items to Focus on from the Educational Master Plan

Several initiatives from the Educational Master Plan have implications with technology. It is critical that when we make strategies for improvement, that all aspects are considered in the planning stage so that whatever change occurs is effective. Some of the initiatives or plans from the Educational Master Plan that need to be highlighted here include:

- **Promise Act Scholarship** – this scholarship may require the use of additional fields in the SIS and additional processes related to the fund distribution and tracking.
- **Faculty Support** – new technologies occur regularly in academia and when faculty members want or need to implement a new technology, we need to be ready to assist.
- **Expansion of Programs** – some academic programs will be expanded into new locations over time and the technology required for these learning environments will be critical to the success of that expansion.
- **Grants** – we are currently involved with multiple grants (TITLE II, USDA, etc.) that require coordination of effort related to technology needs. These activities may include the acquisition of new technology that will need to be integrated into our systems.
- **Website Improvements** – specifically, the College Catalog has been transitioned from a static PDF document on our website to an interactive and user-friendly web design. Additionally, the college is investigating a complete refresh and overhaul of the public-facing website. This will also require coordination of effort from technology services.
- **Mitchell Career and Technology Center** – NCCC is expanding its academic programming into this new center requiring the implementation of new learning environments and the technology that is required for them.
- **Panther Village** – in the future, new student housing may be implemented at the college that will require Wi-Fi and security services similar to current housing needs.

While this is not an exhaustive list, these are items from the most recent version of the Educational Master Plan that directly impacts the Strategic Technology Plan.

Any infrastructure need plan must include technology requests as technology permeates nearly every aspect of all programs. A substantial, constant investment in technology will be required if this plan is to be carried out. Here are the specific requests:

- **Support Staff** – As we continue to expand and grow it is important to understand how this will impact technology services and our ability to provide premier support across the institution. We should periodically evaluate staffing needs based on current workloads and add appropriate resources as needed to keep the standard level of service that our customers are accustomed to.
- **Computer and Software Replacement Schedule** –Faculty/Staff computers will be replaced on roughly a five year rotation funded by the technology fund as funds allow, the oldest 20% of the total PCs will be replaced each year.
- **Instructional technology** – Classroom technology is instrumental in revitalizing instructional delivery. An additional position to support and train faculty in implementing instructional technologies was added in Spring 2020. We continue to investigate and invest in instructional technologies including:
 - Webcams in classrooms and offices for use in virtual classes, as well as lecture recording
 - Student feedback through the use of selected applications and devices
 - Video screen capture software allows for the recording of voice and computer function so instructors can demonstrate various software and then post those demonstrations
 - Overhead cameras (or Elmo's) to capture images of anything placed under the camera for classroom demonstrations
 - Tablet devices to enhance content delivery and encourage student engagement
 - Computer Lab management software that focuses attention of students in the lab by remotely monitoring student computers
 - Video Conferencing hardware and software
 - Simulation hardware and software
 - Interactive displays that enhance on-screen presentations by allowing the instructor operate the computer in an interactive manner
- **Jenzabar Internet Campus Solution (JICS)** – JICS is the software that allows students, faculty, and staff to accomplish many tasks online or electronically and is often referred to as the student portal. Payroll, requisition, LMS, student enrollment, student bill pay, and several other functions work together to comprise the student portal. We must continue to monitor and evaluate the student portal to look for areas where we can improve processes or move them electronically. The Dean for

the Ottawa and Online Campuses and the Director of for Instructional Support and Online Learning work together to train faculty, staff, and students on these functions.

- **Learning Management System (LMS)** – Not only does the Learning Management System enable us to offer online and hybrid courses, face-to-face classes are “web enhanced” with many class resources placed on the course web site. In addition, the grade books for ALL courses are kept in the LMS which allows students to see their grades at any time and submit assignments electronically. It is critical that the LMS work and work well. It is important that the College continually monitor and evaluate the LMS as well as send feedback to the LMS provider, Jenzabar, in order to improve the product. Online Campus personnel oversees training for faculty and students on *myNeosho* and serve as liaisons to Jenzabar.
- **Training** – It is imperative that NCCC provide adequate training for its employees and students. Well trained employees will help to ensure our students have an optimal experience when working with college personnel as well as keep the institution compliant with various mandated requirements.
- **Web Page Improvement** –The college web page is used as a recruiting tool and must be constantly updated and reworked to remain relevant. Studies indicate that the college web page is often the first or second form of contact between the prospective student and the college. Prospective students need up-to-date information on the web. We must continue the commitment to keep the web site live and fresh as trends dictate. The web site was updated with a new look in 2020, we will revisit the look and feel of it again in another year to begin preparations for changing it again. Its intended lifecycle is around 18 months.
- **Lab Equipment** – Not only do the labs need to look modern but the equipment and technologies used in these labs need to be up-to-date and appropriate.
- **Bandwidth Management** – As the institution spends a large amount of funds annually on internet bandwidth it is imperative that we periodically evaluate and implement newer technologies that allow us to manage and maintain appropriate levels of service and monitor the use and/or abuse of the network.
- **Physical Security** – As we continue the move to IP based CCTV monitoring and expansion of the access control system requires additional network and storage resources. We must maintain them at a level that will accommodate not only the current infrastructure but also support new equipment that is added annually from the safety and security master plan.
- **Cyber Security** – We have chosen to follow the Center for Internet Security (CIS) Controls and while we have implemented several changes to align with the framework, some of the remaining items will require funding. These controls are periodically updated to align with emerging trends and changes in the industry and will need to be continually reviewed for updates.

Appendix B – Technology Replacement Schedule

Priority	Need	Estimated Cost
1	Disaster Recovery Solution/Peak Cloud Servers	\$64,000
2	Jenzabar Cloud	\$27,000
3	Cave Testing Lab	\$4,000
4	Chapel Computers	\$4,000
5	Multimedia PC upgrades	\$6,000
6	TLC Testing Lab	\$15,000
7	Projectors for Chanute, Ottawa, and Garnett	\$16,000
8	Jenzabar managed services	\$10,000
9	Update monitors across campus	\$10,000
10	Student Printing/Copying Costs	\$30,000
	Replace instructional technology equipment <ul style="list-style-type: none"> Chanute (5 year cycle,) cost yearly CAVE (29) Room 338 (25) Multimedia (25)- 	\$20,000
	<ul style="list-style-type: none"> Ottawa (5 year cycle) cost yearly Room 605 – (25) 2011 Room 414 TLC Testing Room (26)- 2013 Multimedia (25)- (Last Updated 2016) 	\$30,000
	<ul style="list-style-type: none"> Outreach Locations (5 year cycle) CHS Construction CHS Welding Garnett HVAC Garnett Welding LaHarpe Ross Lane 	
	Purchase division specific Software	\$18,000

	(LA-\$2K, AS-\$2K, Nur-\$2K, Ath-\$2K, CLC-\$2K, Online-\$2k, Outreach-\$2k, Research -\$2k, TLC-\$2k)	
	Purchase division specific Hardware (LA-\$2K, AS-\$2K, Nur-\$2K, Ath-\$2K, CLC-\$2K, Online-\$2k, Outreach-\$2k, Research -\$2k, TLC-\$2k)	\$18,000

The Technology Fund currently generates approximately \$214,515 annually. This is based on 30,645 credit hours at \$7 per credit hour.

General guidelines:

1. Technology Committee prioritizes technology requests.
2. Purchases approved from list above provided funding is available.
3. Allow 10% for uncollected funds.

Current revenue/expense scenario as described above:

Yearly income	193,000k
Yearly expenses	228k
Net Surplus per year	\$-35K

Appendix C – Technology Replacement Schedule Completed Tasks: 2000-2023

2022-2023	Annual Peak Uptime DR Payment	56,280.00
2022-2023	Jenzabar Cloud Hosting	34,900.00
2022-2023	Dell Desktop Computers	20,640.00
2022-2023	DR Appliance Annual Payment	14,800.00
2022-2023	Consulting Hours Jenzabar	9,500.00
2022-2023	Dell Laptops	9,275.00
2022-2023	Boardroom Audio Equipment	15,580.00
2022-2023	Replacement UPS Battery Backup Units for Network Closets	5562.00
2022-2023	Yealink IP Phones	9840.00
2022-2023	Annual Licensing for Bosch Video Management System	15,041.91
2021-2022	Annual Peak Uptime DR Payment	56,280.00
2021-2022	Jenzabar Cloud Hosting	26,988.00
2021-2022	Dell Desktop Computers	18,144.48
2021-2022	DR Appliance Annual Payment	13,975.00
2021-2022	Consulting Hours Jenzabar	6,792.50
2021-2022	Dell Laptops	6,735.00
2021-2022	Webcams	5,394.35
2021-2022	Tablet Floor Stands	3,006.50
2021-2022	Gym Audio Equipment	2,992.00
2021-2022	Boardroom Audio Equipment	2,669.00
2021-2022	Tablets for Classrooms	6,462.90
2021-2022	USB Extenders	1,562.88
2021-2022	Rackmount Battery Backups	1,256.28
2021-2022	Bluetooth Headsets	1,187.55
2021-2022	Subscription Fee for Labster Simulations	1,176.00
2021-2022	Boardroom 360 Camera	1,093.91
2021-2022	Security Camera Mounts	1,058.00
2021-2022	Annual Peak Uptime DR Payment	56,280.00
2021-2022	Annual Licensing for Bosch Video Management System	15,041.91
2020-2021	Annual Peak Uptime DR Payment	56,280.00
2020-2021	Jenzabar Cloud Hosting	26,988.00
2020-2021	Dell Desktop Computers	18,144.48
2020-2021	DR Appliance Annual Payment	13,975.00
2020-2021	Consulting Hours Jenzabar	6,792.50
2020-2021	Dell Laptops	6,735.00
2020-2021	Webcams	5,394.35

2020-2021	Tablet Floor Stands	3,006.50
2020-2021	Gym Audio Equipment	2,992.00
2020-2021	Boardroom Audio Equipment	2,669.00
2020-2021	Tablets for Classrooms	6,462.90
2020-2021	USB Extenders	1,562.88
2020-2021	Rackmount Battery Backups	1,256.28
2020-2021	Bluetooth Headsets	1,187.55
2020-2021	Subscription Fee for Labster Simulations	1,176.00
2020-2021	Boardroom 360 Camera	1,093.91
2020-2021	Security Camera Mounts	1,058.00
2020-2021	Annual Peak Uptime DR Payment	56,280.00
2020-2021	Jenzabar Cloud Hosting	26,988.00
2019-2020	Annual Peak Payment	56,280
2019-2020	Jenzabar Cloud Hosting	26,988
2019-2020	Faculty/Staff PC Rotation	24,207
2019-2020	Annual DR Appliance Payment	14,184
2019-2020	Access Control Repairs / Upgrades	9,974
2019-2020	Access Control Repairs / Upgrades	5,370
2019-2020	Thin Client computers	4,840
2019-2020	Replacement Classroom Projector	4,050
2019-2020	Panasonic Projector for Auditorium	3,164
2019-2020	Convergint-Replace board in CAVE	3,105
2019-2020	Sophos AP100X Outdoor Wi-Fi APs	3,015
2019-2020	Camtasia / Snagit Tech Fund	2000
2019-2020	TLC Charging Stations-Tech Fund/Need PO#	1,924
2019-2020	Softball Streaming Computer	1,786
2019-2020	Sophos Wi-Fi Access Points	1,755
2019-2020	COVID Laptops	1,608
2019-2020	T&M Light Board Repair Auditorium	1,573
2019-2020	Phones	1,500
2019-2020	Security Camera	1,499
2019-2020	OTA Laptop Outreach Tech Fund	1,407
2019-2020	Phone System Upgrades	1,350
2019-2020	Jenzabar support Services	1,235
2019-2020	LanSchool License	1,200
2019-2020	Sophos Wi-Fi Access Points	1,170
2019-2020	Freepbx Phone System 100	1,165

2019-2020	Replacement Parking Lot Cameras	1,155
2019-2020	Lab Simulations Tech Fund	1,288
2019-2020	Ezproxy Upgrade	1,150
2019-2020	Duo Hardware Tokens	1,000
2018-2019	Student/Lab Printing Expenses through April 2019	\$16,951
2018-2019	Faculty/Staff PC Rotation	\$32,144
2018-2019	Year 2 DR Solution	\$68,155
2018-2019	Jenzabar Cloud Hosting Year 1	\$29,988
2018-2019	Ottawa New Camera System and New Cameras with Installation	\$28,575
2018-2019	Jenzabar Remote Database Administration Contract Hours	\$9,500
2018-2019	AEDs and Supplies	\$8,691
2018-2019	Radio Repeater System and Installation	\$7,788
2018-2019	Wireless Presenters and HDMI Switchers	\$3,648
2018-2019	Network Rack UPS Replacements	\$5,134
2018-2019	Sanders 106 Classroom Tech	\$5,075
2018-2019	Year 1 DR Cloud Setup	\$6,000
2018-2019	BVMS Channel Expansion	\$3,221
2018-2019	Conversion Licenses	\$2,240
2018-2019	BVMS Maintenance	\$4,571
2018-2019	Sophos Fastvue	\$2,299
2017-2018	BVMS 7.5 Licenses	\$2,800
2017-2018	Ottawa Router	\$2,930
2017-2018	Bosch Cameras	\$3,173
2017-2018	Sophos Access Points	\$3,321
2017-2018	LED Parking Lot Lights	\$4,233
2017-2018	Radios	\$4,400
2017-2018	Gym lights/Access Control	\$4,867
2017-2018	Alertus Speakers	\$6,930
2017-2018	Campus Radio System	\$8,824
2017-2018	Email Archiving Year 1	\$9,900
2017-2018	Core Datacenter 10G Switches	\$23,774
2017-2018	Dell Equallogic Storage Array	\$25,746
2017-2018	Ottawa Access Control	\$35,079
2017-2018	Year 1 DR Solution	\$67,975
2016-2017	Access Control – Baseball Field	\$6,500
2016-2017	Access Control – Softball Field	\$10,000
2016-2017	Access Control – Server Upgrades	\$5,000

2016-2017	Cameras – Baseball Field	\$4,000
2016-2017	Cameras – Misc Cameras	\$4,000
2016-2017	Cameras – Licenses	\$1,400
2016-2017	Student Printing/Copying Costs as of 1/9/17	\$13,000
2016-2017	Vmware Server Replacement	\$11,000
2016-2017	Multimedia Replacements Chanute/Ottawa	\$33,000
2016-2017	Thin Clients	\$10,000
2016-2017	Wireless Access Points and Additional Switches in Residence Halls	\$30,000
2016-2017	Ottawa Content Filter	\$2,000
2016-2017	Chanute Content Filter	\$2,000
2016-2017	Wifi Radio Expansion and Upgrades	\$10,000
2016-2017	Room 213/209 Zoom Room Upgrades	\$5,000
2016-2017	Streaming Equipment for Athletics	\$6,000
2016-2017	Parking Lot Light Upgrades	\$10,000
2015-2016	AS Dep – Faculty PC and Monitors	\$1,300
2015-2016	LA Dep – Faculty PC	\$1,000
2015-2016	LA Dep – Faculty PC	\$1,000
2015-2016	Nur Dep – Prezi Licenses	\$250
2015-2016	Nur Dep – Camera for 309 Lab	\$500
2015-2016	Nur Dep. – Webcams for Indy x10	\$500
2015-2016	AT Dep. – Streaming equipment	\$150
2015-2016	Conduct Management Software (Maxient)	\$10,000
2015-2016	Lighting for Rowland Parking Lot	\$10,000
2015-2016	Stoltz Computer Lab Furniture	\$12,000
2015-2016	Alertus Software and Devices	\$15,000
2015-2016	Assessment Module	\$30,000
2015-2016	EPS Electronic Room Signs	\$30,000
2015-2016	Cameras/Camera Software	\$19,500
2015-2016	Dell Wyse Thin Clients	\$18,700
2015-2016	Access Control – Sanders	\$3,300
2015-2016	Access Control – Rowland Hall	\$8,700
2015-2016	Access Control – Stoltz	\$3,400
2015-2016	Access Control – Student Union	\$13,600
2015-2016	Access Control – Gym	\$7,000
2015-2016	Jenzabar Maintenance Increases	\$30,000
2014-2015	Server RAM Upgrades	\$5,300
2014-2015	Bosch License Upgrades	\$15,000

2014-2015	Network Equipment	\$3,000
2014-2015	Dell Storage Array	\$30,000
2014-2015	Ottawa VM Server	\$17,500
2014-2015	120 Thin Clients	\$40,000
2014-2015	IP Phones	\$1,900
2014-2015	Bosch Storage for Cameras	\$8,500
2014-2015	Cameras	\$10,000
2014-2015	Access Control	\$30,000
2014-2015	Wayfinding and Digital Signage	\$10,000
2014-2015	Wifi Upgrades – Chanute Campus	\$5,000
2014-2015	Alertus Beacons	\$8,000
2014-2015	SmartMusic 1 st year Subscription and Microphone (LA Departmental funds)	\$184
2014-2015	Adobe Pro Nursing (Nursing Departmental Funds)	\$148.86
2014-2015	USB Extenders (Athletics Departmental Funds)	\$70.80
2014-2015	iPadsx3 (Applied Sciences Departmental Funds)	\$1536
2013-2014	Cadaver Lab Technology	\$10,000
2013-2014	Network Infrastructure Upgrades (POE Switches)	\$10,000
2013-2014	Phone System Upgrades	\$3,600
2013-2014	Proxy Device for Ottawa	\$6,800
2013-2014	Chapman Learning Center Access Control	\$10,000
2013-2014	Dell Storage Array	\$40,000
2013-2014	Multimedia PCs	\$5,500
2013-2014	Security Cameras	\$12000
2013-2014	Garnett Technology	\$4000
2013-2014	POE Switches for IP Phone Infrastructure in Chanute	\$10,000
2013-2014	Stoltz 14 Electronic Signage	\$2,500
2013-2014	Alertus Beacons for Dorms	\$5,500
2013-2014	Multipurpose Building Toggle Lock (Access Control)	\$1,500
2013-2014	Thin Clients	\$18,000
2013-2014	Polycom for Room 213	\$4,500
2013-2014	Apple TVs for All Classrooms	\$8,000
2013-2014	New PC (Outreach Departmental Funds)	\$1,300
2013-2014	New Printer (Outreach Departmental Funds)	\$700
2013-2014	5 laptops For Independence Nursing	\$7,000
2012-2013	24x7x365 InsideNC Support 1 st year costs	\$11,600
2012-2013	Replace TLC (401) Testing Rooms PCs (26)	\$24,853.40

2012-2013	Visix Wayfinding Equipment	\$13,000
2011-2012	Replace Existing JICS Environment	\$54,000
2011-2012	Install VOIP Card at Chanute Campus	\$15,600
2011-2012	Chanute Library/Cave Computers (43)	\$33,200
2011-2012	Lab 333 Computers (17)	\$16,000
2010-2011	Chanute – VOIP Conversion	\$15,600
2010-2011	Ottawa – TV's (Perkins \$19206.00 + Tech Fund \$12501.75)	\$31,707.75
2010-2011	Ottawa – Spare Firewall	\$1,551
2010-2011	JICS VMWARE Environment	\$5,400
2010-2011	Smart Boards – (Kan Ed \$17,250.00+ Tech Fund Match \$9,685.00)	\$26,935
2010-2011	Ottawa – TLC PC's (26) (Perkins \$24,597.76+ Tech Fund \$24,242.40)	\$26,702.16
2009-2010	Revinetics Backup Solution	\$15,365
2009-2010	Workstations (24) Chanute 309 and (22) Ottawa 152 Perkins Match	\$46,684
2009-2010	Faculty Replacement – Institutional Funds (14 Workstations 35 Laptops)	\$74,486
2008-2009	Dartfish Video Analysys Software for Athletics (50% Tech Grant Match)	\$8,020
2008-2009	(5) Sympodium ID370 & SB 680 for Chanute and Ottawa (50% Tech Grant Match)	\$5,582
2008-2009	2 sets (50) Quizdom Classroom Clickers for Chanute and Ottawa (50% Tech Grant Match)	\$4,856
2008-2009	Synchoneyes Classroom Management Software 333,338,2 (50% Tech Grant Match)	\$2,241
2007-2008	(24) Lab 333 and Ottawa Lab 122 (26) – Remainder (\$32,968) from Perkins	\$25,665
2007-2008	EX Purchase and Implementation (\$62k x 5Yr + TE Costs for Implementation)	\$72,000
2006-2007	(25) Lab 338, (20) Ottawa Lab 125	\$37,000
2005-2006	PCs for Ottawa 152/122/ (12) Ottawa Library	\$26,000
2005-2006	Multimedia projectors (in addition to Carl Perkins \$)	\$14,300
2005-2006	Memory for 10 PCs in Room 338	\$1,600
2005-2006	Elmos (1 for each campus)	\$3,000
2004-2005	Library (15 PCs)	\$16,000
2004-2005	CAVE (20 PCs)	\$21,000
2004-2005	Room 152 - Ottawa	\$18,000
2004-2005	Laptop/desktop purchase for faculty-both campuses	\$70,000
2004-2005	Multimedia projectors both campuses	\$33,000
2004-2005	Ottawa Ethernet Conversion – Phase II	\$2,500
2004-2005	Replace Room 2 (was room 6) PC's	\$34,706
2004-2005	Replace Room 309 PC's	\$31,250
2004-2005	ID card printers for both campuses (August 2004)	\$2,800

2003-2004	Acquire new AS400 (March 2004)	\$100,000
2003-2004	Acquire JICS Internet portal software (October 2003—35K yearly+15K maintenance)	\$125,000
2003-2004	Upgrade AS/400 tape drive (July 2003)	\$5,000
2002-2003	Microfilm reader/printer (January 2003, \$5K match)	\$5,000
2002-2003	Classroom multimedia workstations (10) (Technology Grant match)	\$35,000
2002-2003	Ottawa Ethernet conversion – Phase I backbone (January 2003)	\$4,000
2002-2003	Replace Ottawa server (January 2003)	\$5,000
2002-2003	Split Internet off email server (NT2)- add new server (NT4) August 2002	\$5,000
2002-2003	Replace Chanute security system VCR/multiplexers with DVR-August 2002	\$6,000
2002-2003	Add Point-to-Point T-1 to Ottawa campus (yearly-August 2002)	\$6,000
2002-2003	Increase Internet bandwidth Chanute to T1 (yearly-August 2002)	\$12,000
2002-2003	McAfee virus software (yearly-July 2002)	\$3,500
2002-2003	Replace institution wide software (yearly-July 2002)- MS Office suite	\$8,500
2001-2002	Purchase Mac computers for new CAVE lab.	\$17,000
2001-2002	Replace non-Pentium computers in CAVE. Cascade to WDC or SU or Cisco. (3)	\$5,000
2001-2002	Replace all Chanute faculty non-Pentium computers per TS minimum standard. Cascade useable to other staff or student usage either in WDC, Student Union or Cisco lab. (25~\$40,000) Add 64MB memory to other computers (10~\$2,000)	\$42,000
2000-2001	Purchase multimedia workstations for classrooms (5K each 50K-20K grant)	\$30,000
2000-2001	Purchase application server (Office, etc)	\$10,000
2000-2001	Purchase 21 computers for Ottawa 152 (summer install)	\$34,000

Appendix D – Process Users Group (PUG)

The purpose of the Process Users Group (PUG) is to assure that the negative impact of changes to a institution’s Information Technology systems and processes are minimized by using a standardized process of governance.

Why is this important?

The decision to make a change is typically a business decision where costs vs. benefits are weighed. Even in situations where the change is strictly infrastructure-oriented (as in a component or system failure) the decision to spend money resides with the business, not with the IT department. There are occasions when procedures are developed in advance to preauthorize changes such as emergency system maintenance, but regardless of the timing of the authorization, the decision still rests with the business

management. These changes need to be documented and discussed with all parties involved to garner an understanding of the impact to the institution.

Appendix E – Survey Instruments

Technology Services Survey results can be found on the website at:

<https://www.neosho.edu/TechnologySurvey.aspx>

2020 Noel Levitz

